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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,246	10/16/2003	Charles Jay Alpert	AUS920030652US1	9400
7590 04/26/2005			EXAMINER	
Jack V. Musgrove 2911 Briona Wood Lane Cedar Park, TX 78613			SIEK, VUTHE	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/687,246	Applicant(s) ALPERT ET AL. 	
	Examiner Vuthe Siek	Art Unit 2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-21 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 5/18/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application 10687/246 filed on 10/16/2003.

Claims 1-21 remain pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by applicants admitted prior art (AAPA).

4. As to claims 1-21, the AAPA teach that a method for designing a layout of IC comprising known first placement algorithm (CG), partitioning the initial region into partitions regions and second placement algorithm (SOR) different from the first placement (see pages 1-4, page 9, lines 28-29).

5. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Sarrafzadeh et al. (6,851,,099).

6. As to claims 1, 8 and 15, Sarrafzadeh et al. teach a computer-implemented method and a computer system for designing a layout of an integrated circuit (IC)

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comprising first placing a plurality of logic cells in an initial region of the IC using a first placement algorithm (corresponding to the teaching of quadratic placement based on clustering using quadratic technique (GBFM); initial placement as taught by Sarrafzadeh et al.; at least see Fig. 6, 8, 22-23; col. 5-6); partitioning the initial region into two or more partitioned regions (corresponding to the teaching of quadratic placement based on clustering by quadratic technique (GBFM) as taught by Sarrafzadeh et al.; at least see Fig. 6, 8, 22-23; col. 5-6); and second placing a portion of the logic cells in at least one of the partitioned regions using a second placement algorithm which is different from the first placement algorithm (corresponding to the teaching of quadratic placement based on clustering by quadratic technique (GBFM) at least see Fig. 6, 8, 22-23; col. 5-6). Sarrafzadeh et al. teach quadratic placement which includes initial placement and successive placement refinement using quadratic technique (GBFM) (at least see col. 5-6).

7. As to claims 2-7, 8-14 and 16-21, Sarrafzadeh et al. teach the first and second placement algorithms are quadratic placement algorithms (Fig. 6, 8, 22-23; col. 5-6); wherein one of the first or second placement algorithms is a conjugate gradient placement algorithm (corresponding to the teaching of quadratic placement based on clustering; initial placement as taught by Sarrafzadeh et al.; at least see Fig. 6, 8, 22-23; col. 5-6); the first or second placement algorithms is a successive over-relaxation placement algorithm (corresponding to the teaching of quadratic placement based on clustering; placement refinement as taught by Sarrafzadeh et al.; at least see Fig. 6, 8, 22-23; col. 5-6); the first placement algorithm is a conjugate gradient placement

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algorithm; and the second placement algorithm is a successive over-relaxation placement algorithm (corresponding to the teaching of quadratic placement based on clustering; successive placement refinement as taught by Sarrafzadeh et al.; at least see Fig. 6, 8, 22-23; col. 5-6); second partitioning one of the partitioning regions into two or more partitioned sub-regions; and third placing a portion of the logic cells in at least one of the partitioned sub-regions using a third placement algorithm with is different from the first and second placement algorithms (corresponding to the teaching of quadratic placement based on clustering; successive placement refinement are different from previous one since the regions are partitioned into smaller sub-regions and further sub-divided for placement refinement; at least see Fig. 6, 8, 22-23; col. 5-6); and the first placement algorithm is more computationally efficient than the second placement algorithm (col. 5, lines 15-23).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vuthe Siek whose telephone number is (571) 272-1906. The examiner can normally be reached on Increase Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vuthe Siek


VUTHE SIEK
PRIMARY EXAMINER